

Amendment and Response

Applicant: Daniel J. Fisher

Serial No.: 10/821,071

Filed: April 8, 2004

Docket No.: M120,253,101 / 59554US002

Title: ATTACHMENT SYSTEM FOR A SANDING TOOL

REMARKS

This communication is responsive to the Non-Final Office Action mailed July 31, 2006. In that Office Action, claim 4 was objected to due to a typographical error and claims 3 and 28 were rejected under 35 U.S.C. §112, second paragraph, as indefinite. In addition, claims 1-7, 14, 15, and 28-32 were rejected under 35 U.S.C. §102(b) as anticipated by Kleemeier et al., U.S. Patent No. 3,527,001 ("Kleemeier"). Claims 8, 9, 33, and 34 were rejected under 35 U.S.C. §103(a) as unpatentable over Kleemeier in view of Long et al., U.S. Patent No. 6,210,389 ("Long"), and claims 37, 38, and 41 were rejected under 35 U.S.C. §103(a) as unpatentable over Kleemeier.

With this Response, claims 1, 3-4, and 28 have been amended; claim 42 has been added. Claims 1-9, 14-15, 28-34, 37-38, 41, and 42 remain pending and are presented for consideration and allowance.

Objection to Claim 4

The Office Action objected to claim 4 due to a typographical error. The typographical error is unrelated to patentability and has been corrected with this Amendment. It is respectfully requested that the objection to claim 4 be withdrawn.

35 U.S.C. §112, Second Paragraph, Rejections

Claim 3 was again rejected, along with claim 28, under 35 U.S.C. §112, second paragraph, as indefinite. The Office Action takes the position at page 2 that it is "unclear if the applicant is intending to claim the combination of the conversion pad and the abrasive article of just the conversion pad."

With this response, claims 3 and 28 have been amended to clarify the scope of the claims and to more perfectly meet the threshold requirements of clarity and precision imposed by Congress to ensure that the scope of the claims is sufficiently clear to inform the public of the boundaries of the claimed subject matter. MPEP §2173.02.

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In particular, with this response claim 3 has been amended to provide a conversion pad as defined in claim 1, wherein said associated mating surface of said abrasive article comprises a first major surface and a second major surface opposite said first major surface, said second major surface including abrasive for abrading a work surface, and further wherein the attachment region of said conversion pad attachment system is configured to form a releasable connection with said first major surface of said abrasive article.

Independent claim 28 has been amended to provide a conversion pad for attaching an abrasive to a sanding tool, said conversion pad comprising first and second opposed major surfaces, said first major surface being adapted for non-adhesive engagement with a back-up pad of said sanding tool and said second major surface including an attachment surface including attachment material for attaching said conversion pad with an abrasive article.

It is respectfully submitted that the amendments to claims 3 and 28 satisfy the essential inquiry as to whether the claims set out the subject matter with a reasonable degree of clarity and particularity. It is respectfully submitted that the language of claims 3 and 28, when analyzed in light of the content of the application disclosure, the cited references, and the plain meaning of the claims as interpreted by one of ordinary skill in the art at the time of the invention was made support the conclusion that claims 3 and 28 are definite. For these reasons, it is respectfully requested that the rejections to claims 3 and 28 under 35 U.S.C. §112, second paragraph, be withdrawn.

35 U.S.C. §§102, 103 Rejections

Claims 1-7, 14, 15, and 28-32 were rejected under 35 U.S.C. §102(b) as anticipated by Kleemeier.

Kleemeier discloses a holder 10 for an abrasive product. Kleemeier discloses at column 2, lines 35-48 that holder 10 includes an upper member 11 designed to attach to a conventional rotary floor sanding machine, a rigid plate 12 attached to the upper member 11, and a rubber layer 13 attached to the rigid plate 12. Kleemeier discloses at column 3, line 74 through column 4, line 10 that the rubber layer 13 is provided to extend beyond the rigid plate 12 to prevent

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scratching or gouging of surfaces by the rigid plate 12 during floor polishing operations. In this regard, the upper member 11, the rigid plate 12, and the rubber layer 13 are rigidly coupled together to define the holder 10 that attaches to the floor polishing machine.

Kleemeier discloses a driving layer 15 that attaches to the holder 10. Driving layer 15 includes filament heads 16 captured in a resinous layer 14 that has a pressure sensitive adhesive layer 18 coated on a side of the resin layer 14 opposite of the filament heads 16. Kleemeier discloses that the driving layer 15 can be removed and replaced relative to the holder 10 with a minimum of effort (column 2, lines 10-11) by virtue of the pressure sensitive adhesive layer 18 (column 3, lines 68-74).

The Office Action takes the position at page 3 that Kleemeier discloses a conversion pad that is comprised of either rubber layer 13 and resin layer 14 and driving layer 15, or comprised by resin layer 14 and driving layer 15. Applicant has reviewed Kleemeier and has been unable to determine what would constitute a back-up pad, and has been unable to identify anything that could be characterized as a conversion pad. A conversion pad is a pad removably (or releasably) placed on the surface of a back-up pad to change the attachment system provided on the back-up pad. Kleemeier fails to disclose a pad that is removably attached to a back-up pad to change the attachment system of a back-up pad. Accordingly, Kleemeier fails to disclose a conversion pad and because Kleemeier does not contemplate accommodating abrasive discs with different attachment systems, there would be no reason for Kleemeier to provide a conversion pad. For these reasons alone, claim 1 is allowable over Kleemeier.

In addition, with this response, independent claim 1 has been amended to provide a conversion pad for attaching an abrasive article to a back-up pad of a sanding tool, said conversion pad having a non-adhesive surface for removable engagement with the back-up pad.

It is respectfully submitted that Kleemeier does not teach or suggest a conversion pad including a non-adhesive surface for engagement with a back-up pad. In fact, Kleemeier requires adhesive layer 18 to facilitate attachment of the driving layer 15 to either sponge rubber layer 13 or rigid plate 12.

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Thus, it is respectfully submitted that amended independent claim 1, and claims depending from amended independent claim 1, are not anticipated by Kleemeier, such that the rejections to claims 1-7, 14, and 15 under 35 U.S.C. §102(b) over Kleemeier must be withdrawn.

Claims 8 and 9 were rejected under 35 U.S.C. §103(a) as unpatentable over Kleemeier in view of Long. To this end, the Office Action agrees that Long is not from the same field of endeavor (Office Action at page 11). However, the Office Action takes the position that Long is reasonably pertinent because Long provides closures that “releasably connect two things.” Further, in applying the two part non-analogous test, the Office Action takes the position that with respect to the question of “whether Long is reasonably pertinent to the particular problem with which the inventor is involved,” that “the inventor” in question is not the applicant. These positions are respectfully traversed for at least the following reasons.

The fastening system provided by Long is directed to providing a securement system that is secure enough to resist “premature pop-opens” in baby diapers (column 2, lines 5-14) while being gentle on the skin and easy to remove when the diaper becomes soiled. In this regard, it is submitted that even the most secure baby diaper fastening system (i.e., the “strongest”) of Long would be entirely ill-suited for attaching abrasives to sanding tools. The fastening systems of Long simply provide insufficient fastening attributes for sanding tools, such that one of skill in the sanding tool art would have no reason to look to the diaper fasteners of Long when attempting to advance the sanding tool art.

The position of the Federal Circuit is: “A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to the inventor’s attention in considering his problem . . . If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem . . . If is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.” *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). In this regard, “the inventor” is in reference to the applicant, and thus problems arising relative to the subject matter of the applicant’s field of endeavor. It is improper to randomly select any “inventor” from any field/technology as “the inventor,” as apparently done in the Office Action.

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If examiners were allowed to randomly “pick” any inventor/field when analyzing the second factor under the non-analogous art test, it would essentially be impossible for any reference to be non-analogous. This clearly is not the intent of 35 U.S.C. §103 or MPEP §2141.01. Thus, the question is whether Long is reasonably pertinent to problems an inventor would encounter in removably attaching an abrasive article to a sanding tool. It is not.

Long is related to easily removable baby diaper closures would in no manner logically commend itself to one of skill in the art of abrasive sanding tools when considering problems in this field. As such, Long is not reasonably pertinent to the particular problem with which the inventor is involved, such that Long is non-analogous art that is not available for a Section 103 determination. Further, even if Kleemeier and Long were to be combined, the resulting device would not provide a conversion pad having a non-adhesive surface for removable engagement with a back-up pad, as required by amended independent claim 1. Thus, it is respectfully requested that the rejections to claims 8 and 9 under 35 U.S.C. §103(a) as unpatentable over Kleemeier in view of Long be withdrawn.

Amended claim 28 recites a conversion pad having an attachment surface and a non-attachment surface terminating opposite a first major surface of the conversion pad, with the attachment and non-attachment surfaces being co-planar opposite the first major surface. In rejecting claim 14, the Office Action asserts that the “attachment surface” of Kleemeier includes the tips of the attachment members (16 or 17) as well as a surface of the resin layer 14 “between” the attachment members. With respect to claim 28, however, the “attachment surface” is a terminal face opposite an opposed major surface of the conversion pad. As applied to Kleemeier, then, the plane of the “attachment surface” of Kleemeier (commensurate with amended claim 28) is limited to the terminating ends of the attachment members 16 or 17. Given this understanding, the terminating ends of the attachment members 16 or 17 are not co-planar with the “non-attachment surface” of Kleemeier (that is otherwise the perimeter of the resin layer 14 free of the attachment members 16 or 17). Thus, amended claim 28 is not taught or suggested by Kleemeier.

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Claims 29-34 depend from claim 28 and thus, for at least the reasons above, are allowable. Claims 33 and 33 further define over the cited references for at least the reasons described above with respect to claims 8 and 9.

Claims 37, 38, and 41 were rejected under 35 U.S.C. §103(a) as unpatentable over Kleemeier. The Office Action concedes at page 9 that Kleemeier fails to disclose a conversion pad having edges aligned with a back-up pad, but takes the position that it is well known in the art to align edges of circular abrasive pad combinations. We respectfully disagree.

To establish a *prima facie* case of obviousness, all three of the following basic criteria must be met: First, there must be some suggestion or motivation to modify or combine the reference teachings; second, there must exist a reasonable expectation of success; and third, the references must teach or suggest all of the claim limitations. MPEP §2143.

Kleemeier expressly provides at column 3, line 74 to column 4, line 10 that the rigid plate 12 is slightly smaller in diameter than the rubber layer 13, such that the rubber layer 13 prevents scratching or gouging of surfaces by the plate 12 during floor polishing operations. Thus, the rubber layer 13 provides the dual function of being compressible to accommodate irregular floor surfaces, and extends beyond the plate 12 to provide “a bumper” to protect wall surfaces.

In FIG. 1, Kleemeier illustrates that none of the many layers of the holder 10 and the driving layer 15 extend beyond the rubber layer 13. In particular, Kleemeier specifically illustrates that the resin layer 14 is not aligned with the rubber layer 13, the filament heads 16 are not aligned with either the resin layer 14 or the rubber layer 13, and the rubber layer 13 extends beyond both the plate 12 and the diving layer 15 to provide a protective “bumper.”

Consequently, based upon the express disclosure in Kleemeier, it is respectfully submitted that there is no motivation to modify Kleemeier to align the edges of the back-up pad (holder 10), the conversion pad (driving layer 15), and the abrasive article 20, as required by independent claim 37. In fact, it is believed that Kleemeier teaches away from any such combination by specifically providing the rubber layer 13 to “prevent scratching or gouging of surfaces with which plate 12 might otherwise come in contact.”

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In addition, even if Kleemeier were motivated to align edges of the rubber layer 13 and the driving layer 15 with the abrasive article 20, it is respectfully submitted that this modification would not have a reasonable expectation of success. In particular, aligning the edges in this manner would include at least some offset error relative to the layers that would impede the rubber layer 13 from preventing scratching or gouging of surfaces by the plate 12. In other words, stacking multiple layers of similar diameter is likely to result in one or more of the stacked layers extending beyond the rubber layer 13. Thus, it could not be assured that the rubber layer 13 would extend beyond these multiple stacked layers to "prevent scratching or gouging of surfaces with which plate 12 might otherwise come in contact," as required by Kleemeier.

For all of the above reasons, it is respectfully submitted that independent claim 37, and claims 38 and 41 that depend from independent claim 37, are not rendered obvious over Kleemeier. It is respectfully requested that the rejections to claims 37, 38, and 41 under 35 U.S.C. §103(a) as unpatentable over Kleemeier be withdrawn.

Newly presented claim 42 depends from claim 37 and thus, for at least the above reasons, is allowable. In addition, claim 42 recites that the conversion pad includes a backing defining the first major surface and a face opposite the first major surface. In addition, the conversion pad includes a plurality of fastening elements extending from said backing across an entirety of the face. In contrast, the attachment members of Kleemeier clearly do not extend across an entirety of the resin layer 14. Thus, it is respectfully submitted that newly presented claim 42 recites additionally allowable subject matter.

CONCLUSION

In view of the above, it is respectfully submitted that claims 1-9, 14-15, 28-34, 37-38, 41, and 42 recite patentable subject matter, are in form for allowance, and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-9, 14-15, 28-34, 37-38, 41, and 42 is respectfully requested.

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No fees are required under 37 C.F.R. 1.16 for additional claims. However, if other fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

Any inquiry regarding this Amendment and Response should be directed to either David B. Patchett at Telephone No. (651) 736-4713, Facsimile No. (651) 736-3833 or Timothy A. Czaja at Telephone No. (612) 573-2004, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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